



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/727,193

12/03/2003

Bernard E. Brady JR.

M0929.70003US00

4674

46630

7590

08/13/2009

EMC Corporation

c/o WOLF, GREENFIELD & SACKS, P.C.

600 ATLANTIC AVENUE

BOSTON, MA 02210-2206

EXAMINER

MACILWINEN, JOHN MOORE JAIN

ART UNIT

PAPER NUMBER

2442

MAIL DATE

DELIVERY MODE

08/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,193

Applicant(s)

BRADY ET AL.

Examiner

John M. MacIwinen

Art Unit

2442

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 129-182 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 129-182 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-08)
- Paper No(s)/Mail Date 7/7/2009, 7/14/2009
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/7/2009 have been fully considered but are moot as said arguments are directed to cancelled claims.
2. Applicant's arguments filed 7/7/2009 address currently canceled claim 1, beginning on page 17 stating that the Applicant "would like to discuss . . . claim 1 . . ." and concluding on page 20 with ". . . in order to read the disclosure . . . onto claim 1 . . .". Applicant's arguments thus are directed to cancelled claim 1, and thus are not persuasive.

Response to Amendment

3. Applicant's amendment, filed 7/07/2009, attempts to present claims 129 through 180. However, Applicant's claims are numbered incorrectly; claims 157, 164 and 176 each appear twice and there is no claim 179. Applicant's claims thus have been renumbered correctly, said renumbering included attached appendix. Applicant's claims are addressed utilizing the corrected claim numbering. Thus, currently pending are claims 129 – 182.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter for the reasons given below in the 35 USC 112 written description rejection. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 136, 159 and 172 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Said claims recite “an index indicating how to enter ... transmission events unabridged”.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 129 – 135, 137 – 140, 142 – 145, 148 – 154, 156 – 158, 160 – 171, 173 – 176 and 178 - 179 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khanolkar (US 7,127,743 B1) in view of Wiley (US 7,017,185 B1).
9. Regarding claim 129, Khanolkar shows a method comprising collecting (Fig. 2, item 58) a plurality of transmission events provided by one or

more nodes of a network (Fig. 1, items 11 – 16 providing said events) into one or more data structures (col. 4 lines 21 – 28)

Khanolkar does not show all of creating one or more characterization records for at least one or more data structure of said one or more data structures, one or more transmission events of said plurality of the transmission events being collected to said at least one data structure of said one or more data structures, wherein at least one of said one or more characterization records comprises one or more indicators of a location or locations of one or more data elements comprised in at least one of said one or more transmission events, to allow accessing said at least one of the one or more characterization records to determine said or more indicators of the location or locations of said one or more data elements.

Wiley shows creating one or more characterization records (represented by Wiley's keysets, col. 4 lines 51 – 58) for at least one or more data structure of said one or more data structures, one or more transmission events of said plurality of the transmission events being collected to said at least one data structure of said one or more data structures, wherein at least one of said one or more characterization records comprises one or more indicators of a location or locations of one or more data elements comprised in at least one of said one or more transmission events, to allow accessing said at least one of the one or more characterization records to determine said or more indicators of the location or locations of said one or more data elements (col. 5 lines 8 – 67, col. 7 lines 35 – 51).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Khanolkar with that of Wiley in order to provide faster access to stored data (Wiley, col. 2 lines 17 – 28).

10. Regarding claim 148, Khanolkar in view of Wiley further show an apparatus comprising a first controller, configured to perform collecting a plurality of transmission events provided by one or more nodes of a network into one or more data structures (Khanolkar, Figs. 1 and 2, col. 4 lines 21 – 28); and

a second controller, configured to create one or more characterization records for at least one data structure of said characterization records for at least one data structure of said one or more data structures, one or more transmission events of said plurality of the transmission events being collected to said at least one data structure of said one or more data structures, wherein at least one of said one or more characterization records comprises one or more indicators of a location or locations of one or more data elements comprised in at least one of said one or more transmission events, to allow accessing said at least one of the one or more characterization records to determine said one or more indicators of the location or locations of said one or more data elements (Wiley, col. 5 lines 8 – 67, col. 7 lines 35 – 51).

11. Regarding claim 166, Khanolkar in view of Wiley further show a computer software product comprising a computer useable medium having computer readable instructions stored thereon for execution by a processor to perform a method comprising:

collecting a plurality of transmission events provided by one or more nodes of a network into one or more data structures (Khanolkar, Figs. 1 and 2, col. 4 lines 21 – 28);

and

creating one or more characterization records for at least one data structure of said characterization records for at least one data structure of said one or more data structures, one or more transmission events of said plurality of the transmission events being collected to said at least one data structure of said one or more data structures, wherein at least one of said one or more characterization records comprises one or more indicators of a location or locations of one or more data elements comprised in at least one of said one or more transmission events, to allow accessing said at least one of the one or more characterization records to determine said one or more indicators of the location or locations of said one or more data elements (Wiley, col. 5 lines 8 – 67, col. 7 lines 35 – 51).

12. Regarding claim 130, Khanolkar in view of Wiley further show wherein said collecting and said creating is performed by a site of a plurality of sites comprised in said network (Khanolkar, Fig. 1, col. 1 line 48 – col. 2 line 10).

13. Regarding claims 131, 157 and 167, Khanolkar in view of Wiley further show wherein said one or more data elements are stored within said at least one data structure (Khanolkar, col. 4 lines 21 – 30, col. 5 line 65 - col. 6 line 14).

14. Regarding claims 132, 149 and 168, Khanolkar in view of Wiley further show wherein said collecting comprises creating observation records of said plurality of the transmission events and storing said observation records in said one or more data structures, such that said at least one data structure of said one or more data structures comprises one or more observation records of said observation records created using

one or more transmission events of said plurality of transmission events, said one or more observation records being generated using one or more characteristics of said one or more transmission events in order to allow entering said one or more observation records to determine whether at least one of said one or more characteristics is present in said at least one data structure (Khanolkar, col. 4 lines 21 – 55, col. 5 line 65 – col. 6 line 21).

15. Regarding claims 133, 151 and 169, Khanolkar in view of Wiley further show wherein said one or more characteristics of said one or more transmission events are one or more of: a period during which a transmission event of said one or more transmission events is occurred, and an internet protocol address of a node of said one or more nodes transmitted said transmission event (Khanolkar, col. 2 lines 32 – 37).

16. Regarding claims 134, 152 and 170, Khanolkar in view of Wiley further show wherein said at least one of said one or more characterization records is an index creating using said one or more observation records (Wiley, col. 5 lines 10 – 17, col. 5 lines 63 – 67, col. 7 lines 35 – 51).

17. Regarding claims 135, 158 and 171, Khanolkar in view of Wiley further show wherein said at least one of said one or more characterization records is an index comprising one or more of: a type of or an importance level for a transmission event of said one or more transmission events, an internet protocol address of a node of said one or more nodes transmitted said transmission event, and an internet protocol address of a node of said one or more nodes being a destination of said transmission event (Wiley, col. 5 lines 10 – 17, col. 5 lines 63 – 67, col. 7 lines 35 – 51).

18. Regarding claims 137, 160 and 173, Khanolkar in view of Wiley further show wherein said one or more characterization records comprise a summary of said one or more transmission events of said plurality of transmission events (Khanolkar, col. 2 lines 10 - 25, col. 5 line 65 - col. 6 line 22, col. 8 lines 25 - 34).

19. Regarding claims 138, 161 and 174, Khanolkar in view of Wiley further show wherein at least one of said plurality of the transmission events is a notification (Khanolkar, col. 2 lines 10 – 67, col. 4 lines 15 – 30).

20. Regarding claims 139, 162 and 175, Khanolkar in view of Wiley further show wherein said one or more data elements comprise partial or complete data comprised in said at least one or more of the one or more transmission events (col. 4 lines 15 - 30).

21. Regarding claims 140, 150, 153, 154 and 176, Khanolkar in view of Wiley further show storing said one or more data structures comprising corresponding said one or more characterization records in a memory, in a non-volatile memory or in a data storage (Khanolkar, col. 7 lines 10 – 13).

22. Regarding claims 142, 163 and 178, Khanolkar in view of Wiley further show wherein one of said one or more characterization records comprise an aggregate summary of said at least one data structure and one or more of other data structures of said one or more data structures (Khanolkar, col. 2 lines 10 – 25, col. 5 line 65 – col. 6 line 22, col. 8 lines 25 – 34).

23. Regarding claim 143, Khanolkar in view of Wiley further show where said network is configured to provide network activity data in a computer system comprising

a plurality of nodes interconnected for communicating via said network (Khanolkar, col. 2 lines 25 - 38).

24. Regarding claims 144, 164 and 179 Khanolkar in view of Wiley further show wherein all or selected transmission events of said plurality of the transmission events are notifications provided by all or selected nodes of said one or more nodes of said network (Khanolkar, col. 2 lines 16 – 67, col. 4 lines 15 - 30).

25. Regarding claims 145, 156, 165 and 180, Khanolkar in view of Wiley further show wherein said location or said locations of the one or more data elements are insaid at least one data structure of said one or more data structures (Wiley, col. 5 lines 25 – 67, col. 7 lines 35 – 51).

26. Claims 136, 159 and 172 rejected under 35 U.S.C. 103(a) as being unpatentable over Khanolkar in view of Wiley as applied to claims 129, 148 and 166 above, and further in view of Hellerstein (US 6,836,894 B1).

27. Regarding claims 136, 159 and 172, Khanolkar in view of Wiley show claims 136, 159 and 172, as well as wherein said at least one of said one or more characterization records is an index allowing transmission event viewing (Wiley, col. 5 lines 10 - 17, col. 5 lines 63 - 67, col. 7 lines 35 – 51).

Khanolkar in view of Wiley do not show viewing transmission events unabridged.

Hellerstein shows viewing transmission events unabridged (col. 7 lines 17 – 37)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Khanolkar in view of Wiley with that of Hellerstein

in order to ensure the user has all data at his or her disposal to enable the most informed decision possible.

28. Claims 141, 155 and 177 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khanolkar in view of Wiley as applied to claims 129, 148 and 166 above, and further in view of Richard et al. (US 2005/0015461 A1), hereafter Richard.

29. Khanolkar in view of Wiley show claims 129, 148 and 166

Khanolkar in view of Wiley do not explicitly show storing records as a file system or as a hierarchical file system.

Richard shows using hierarchical file systems for storage ([111]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Khanolkar in view of Wiley with that of Richard in order to utilize a common type of file system (Richard, [111]).

30. Claims 146, 147, 181 and 182 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khanolkar in view of Wiley as applied to claims 129, 148 and 166 above, further in view of Microsoft Computer Dictionary, 5th Edition.

31. Regarding claims 146 and 181, Khanolkar in view of Wiley show claims 129, 148 and 166.

Khanolkar in view of Wiley do not explicitly show utilizing compression on the data structure.

Microsoft Computer Dictionary shows compression of files, such as data structures (pgs. 2-3 and 4 -5).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Khanolkar in view of Wiley with that of Microsoft Computer Dictionary in order to utilize common ideas in computing environments, as well as to optimize the storage size of the data structure.

32. Regarding claims 147 and 182, Khanolkar in view of Wiley and Microsoft Computer Dictionary show creating a digital signature of said at least one data structures (Microsoft Computer Dictionary, pgs. 2 – 3 and 6).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. MacIwinen whose telephone number is (571) 272-9686. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Caldwell/
Supervisory Patent Examiner, Art
Unit 2442

John MacIlwain
(571) 272 - 9686